

IN THE CLAIMS

1. (Currently Amended) A method, comprising:

establishing a communication channel between a first ~~modem~~ ~~transceiver~~ and a second transceiver in low power mode;

determining a training parameter ~~using~~ ~~in response to establishing the communication channel in the low power mode~~; and

performing training in response to determining the training parameter.

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2. (Original) The method of claim 1, further including providing the training parameter to the second transceiver.

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3. (Original) The method of claim 1, wherein establishing the channel includes establishing the channel with the smallest amount of power acceptable.

4. (Original) The method of claim 1, wherein the low power mode includes a cutback in the range of 0-30 dB.

5. (Original) The method of claim 1, wherein determining the training parameter includes determining a phase distortion of the communication channel.

6. (Original) The method of claim 1, wherein determining the training parameter includes determining an amplitude distortion of the communication channel.

7. (Original) The method of claim 1, wherein determining the training parameter includes determining a transmitter characteristic of the second transceiver using the communication channel.

8. (Original) The method of claim 7, wherein the transmitter characteristic of the second transceiver includes determining a symbol timing of the transmitter.

9. (Original) The method of claim 7, wherein the transmitter characteristic of the second transceiver includes determining a carrier frequency of the transmitter.

10. (Original) The method of claim 7, wherein the transmitter characteristic of the second transceiver includes determining a carrier phase of the transmitter.

11. (Original) The method of claim 1, further including providing a training parameter to the first transceiver by the second transceiver.

12. (Currently Amended) An apparatus for communicating with a transceiver, comprising:

a first logic being capable of establishing a communication channel with the transceiver in a low power mode; and

a second logic being capable of:

determining a training parameter using in response to establishing the communication channel in the low power mode; and

providing the training parameter to the transceiver.

13. (Original) The apparatus of claim 12, further including a third logic being capable of transmitting and receiving data with the transceiver.

14. (Original) The apparatus of claim 13, wherein the first logic is capable of establishing the channel with the smallest amount of power acceptable

15. (Original) The apparatus of claim 13, wherein the low power mode includes a cutback in the range of 0-30 dB.

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16. (Original) The apparatus of claim 13, wherein the second logic being capable of determining the training parameter includes the second logic being capable of determining a phase distortion of the communication channel.

17. (Original) The apparatus of claim 16, wherein the second logic being capable of determining the training parameter includes the second logic being capable of determining an amplitude distortion of the communication channel.

18. (Original) The apparatus of claim 17, wherein the second logic being capable of determining the training parameter includes the second logic being capable of determining a transmitter characteristic of the second transceiver using the communication channel.

19. (Original) The apparatus of claim 18, wherein the transmitter characteristic of the second transceiver includes determining a carrier frequency of the transmitter.

20. (Original) The apparatus of claim 19, wherein the transmitter characteristic of the second transceiver includes determining a carrier phase of the transmitter.

21. (Currently Amended) A system, comprising:

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a first transceiver; and

a second transceiver, comprising

~~a first logic being capable of establishing a communication channel with the first transceiver in a low power mode; and~~

~~a second logic being capable of:~~

~~determining the training parameter using in response to establishing the communication channel in the low power mode; and~~

providing the training parameter to the first transceiver.

22. (Original) The system of claim 21, wherein the first transceiver is a DSL modem.

23. (Original) The system of claim 22, wherein the second transceiver is a DSL modem.

24. (Currently Amended) The system of claim 23, wherein the second transceiver~~first logic~~ is capable of establishing the channel with the smallest amount of power acceptable.

25. (Currently Amended) The system of claim 23, wherein the second transceiver~~second logic~~ being capable of determining the training parameter includes the second transceiver~~second logic~~ being capable of determining at least one of phase distortion and amplitude distortion of the communication channel.

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26. (Currently Amended) The system of claim 25, wherein the second transceiver~~second logic~~ being capable of determining the training parameter includes the second transceiver~~second logic~~ being capable of determining a transmitter characteristic of the second transceiver using the communication channel

27. (Original) The system of claim 26, wherein the transmitter characteristic of the first transceiver includes determining at least one of carrier frequency, carrier phase, and symbol timing of the transmitter.

28. (Currently Amended) An apparatus, comprising:
means for establishing a communication channel between a first ~~modem~~transceiver and a second transceiver in low power mode;
means for determining training parameters ~~using~~in response to establishing the communication channel in the low power mode; and
means for providing the training parameters to the second transceiver.

29. (New) The method of claim 1, wherein establishing the communication channel in the low power mode comprises iteratively increasing a power level between the first and second transceiver until a successful connection is established.

30. (New) The method of claim 1, wherein establishing the communication channel in the low power mode comprises selecting a power level based on previously stored priori power level estimates.

31. (New) The apparatus of claim 12, wherein the second logic is adapted to at least one of iteratively increase a power level until a successful connection is established with a remote receiver and selecting a power level based on previously stored priori power level estimates.

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32. (New) The system of claim 21, wherein the second transceiver is adapted to at least one of iteratively increase a power level until a successful connection is established with a remote transceiver and selecting a power level based on previously stored priori power level estimates.

33. (New) A method, comprising:

performing training between a first transceiver and a second transceiver in a low power mode; and

transmitting data from the first transceiver to the second transceiver in response to performing training in the low power mode.

34. (New) The method of claim 33, wherein performing training in the low power mode comprises at least one of iteratively increasing a power level until a successful connection is established between the first and second transceivers and selecting a power level based on previously stored priori power level estimates.

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